

NOTES ON CANTHARIS
(Coleoptera, Cantharidæ)

BY DOROTHY FENDER

McMinnville, Oregon

In the early stages of a revisional study of the genus *Cantharis* in which the author is now engaged, a new species very near *Cantharis carolinus* Fabr. was discovered mixed with the older species. It is very likely that this species has been confused with *carolinus* for many years, as was the case with *C. neglectus* Fall.

Neglectus in spite of its close resemblance to *carolinus*, is not closely related to it. The new species herein described and *carolinus* form a group by themselves, which, in the opinion of the author, must properly be considered as representing a distinct genus. This opinion is based on the enormous development of the basal portions of the male genital armature, these being so strongly developed as to envelope most of the remainder of the structure, a condition not paralleled elsewhere in the family. It is the present intention only to describe the new species and leave the problem of the generic status of this group for treatment in the larger paper in preparation. A redescription of *C. carolinus* is herein also presented as an aid in recognizing the new species.

CANTHARIS CAROLINUS Fabr.

Black, pubescence golden. Head black, sides of clypeus and a narrow frontal stripe testaceous (this maculation might also be described as two piceous stripes between the antennæ); rather finely, distantly punctate, the surface rather polished; occiput smooth and convex. Eyes small, about one-fourth the length of head in the male, less than one-fourth the length of head and widely separated in the female. Antennæ stout, laterally compressed, subserrate, those of the female relatively more slender and shorter. Thorax subquadrate, moderately transverse, more so in female; front angles rounded, hind angles sub-acute; front margin evenly, shallowly arcuate, hind margin subsinuate; testaceous, with a discal black area which is wider at base than apex, the margins of this area smooth, not interrupted by the testaceous as in *bilobatus* and *neglectus*; smooth, shining, with fine scattered punctures bearing the fine, rather long, golden pubescence. Tarsi stout, all segments broad and lobed. Claws with a long basal tooth making them appear cleft (fig. 1). Ventral segments black, sides and median area of apex of each segment often narrowly testaceous. Male genital armature with the dorsal plate shallowly emarginate, ventral hooks simple (fig. 3). Length: Male: overall 11.5 mm.;

elytra 8.2 mm.; antennæ 8 mm. Female overall 13 mm.; elytra 9 mm.; antennæ 7 mm. Width: Male elytra 3.5 mm.; thorax 2.75 mm. Female elytra 4 mm.; thorax 3.5 mm.

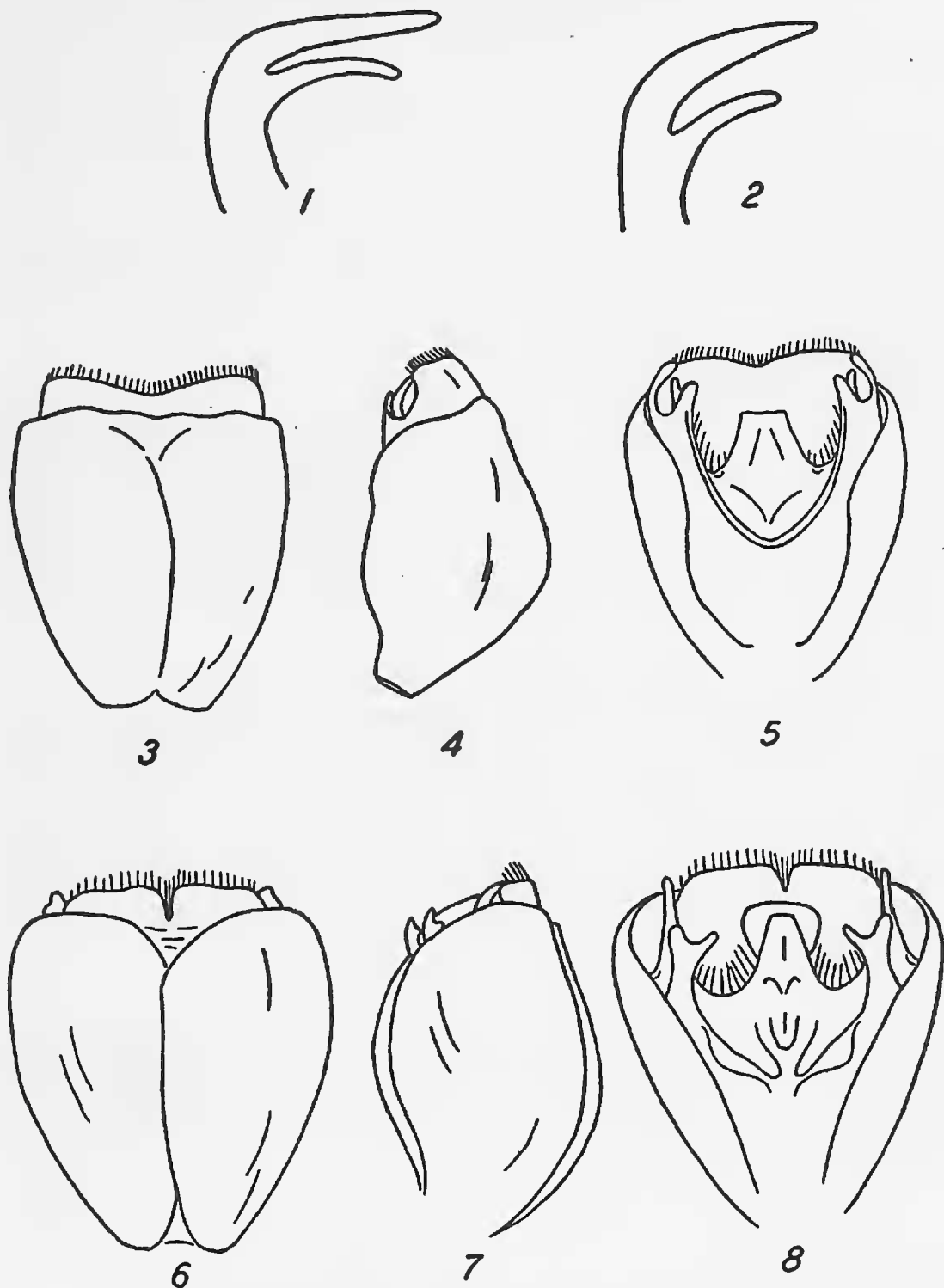


Figure 1, unguis formation of *Cantharis carolinus* Fabr.; 2, same of *lobatus*, n. sp.; 3, 4, and 5, dorsal, lateral, and ventral views, respectively, of male genital armature of *carolinus*; 6, 7, and 8, dorsal, lateral, and ventral views, respectively, of *lobatus*, n. sp.

The color phase *C. jactatus* Say differs only in paler pigmentation.

Two hundred specimens examined. Distributional extremes are represented by Maine, Ontario and Minnesota on the north and Key West, Florida to Texas on the south.

Cantharis bilobatus Fender, new species

Piceous, or brunneo-piceous, pubescence cinereous. Head piceous except for a pale area at base of antennæ extending forward to side margins of clypeus, leaving frons dark, this a solid dark area in most specimens. In some specimens there is a paler area directly between the antennæ, and in the pale forms this dark frontal area is split into two stripes. Punctation rather close, moderately deep, confused, rather coarse, surface rather dull; occiput impressed, not convex. Eyes large, nearly one-half the length of head in the male, about one-fourth the length of head in the female. Antennæ slender, sub-cylindrical, segments a little shorter in the female. Thorax subquadrate, slightly narrowed anteriorly; relatively longer and less transverse, that of female more transverse but less so than in *carolinus*; pale with piceous maculation, this as in *carolinus* except that the yellow part intrudes into the external portion of the base, thus forming two piceous basal lobes on each side. Tarsi slender, nearly cylindrical (at least in dried specimens). Claws as in *carolinus* except that the tips of the two parts are more distant (fig. 2). Ventral segments of male piceous, margined with dark testaceous at sides and except for sixth at apex, this testaceous portion broadest on the median line. Female uniformly piceous beneath. Male genital armature: dorsal plate deeply cleft on the median line, ventral hooks bilobed (fig. 6). Measurements: Length: Male overall 10 mm.; elytra 8 mm.; antennæ 5.5 mm. Female overall 10.5 mm.; elytra 8.5 mm.; antennæ 5.5 mm. Width: Male elytra 3 mm.; thorax 2 mm. Female elytra 3.75 mm.; thorax 2.5 mm. The two specimens from Ontario are smaller; male and female measuring 8 and 9.5 mm. in length respectively.

In some specimens the normally piceous areas are dark testaceous or brunneous and the frontal stripe is divided as in *carolinus*. This represents a color phase corresponding to *C. carolinus jactatus* Say.

Holotype, male, Hennepin County, Minn., collected by C. W. Oestlund. Allotype, female, Douglas County, Minn., June 14, 1937, collected by F. C. Fisk. Specimens examined, 8 males and 10 females. Iowa: Sioux City, June 23, 1925 (C. N. Ainslie). Minnesota: Crookston, July 12, 1935, and July 3, 1939; Houston County, May 24, 1937 (P. M. Schroeder), and June 16, 1910; Itaska Park, July 3, 1939; two specimens, Shakopee, June 10, 1922 (C. E. Mickel); La Crescent, June 16, 1925 (C. B. Philip); two specimens, Ottertl County, Otto Lugger collection. North Carolina: Lake Waccaman, April 14, 1904 (F. S. Sherman); Wallace, April 6, 1904 (F. S. Sherman). New Mexico: Otto Lugger collection. (This record seems anomalous). Ontario:

Prince Edward County, July 14, 1929; Rainy River District, July 22, 1924 (J. F. Brimley).

Perhaps the easiest character for differentiating this species when mixed with *carolinus* material is the lobular form of the basal portion of the piceous pronotal maculation. *Neglectus*, which also has the basal portion of the pronotal maculation interrupted, differs in the pale part entering only on the median line whereas this species, while some of the testaceous may interrupt the base at the center, always has the lateral portion interrupted. Rarely, paler *carolinus* specimens may show a breaking up of the basal portion of the pronotal maculation, but there is not the definite lobe which we find in this species. This pronotal character, if supported by the more slender form, slender antennæ and tarsi, more divaricate unguis teeth, and large eyes, makes identification simple, even without the aid of genitalic dissections.

DESCRIPTIONS OF TWO NEW SPECIES OF WATER
BEETLES OF THE GENUS HYDROPORUS
FROM CALIFORNIA¹
(Coleoptera, Dytiscidæ)

BY HUGH B. LEECH

Vernon, British Columbia

***Hydroporus rossi* Leech, new species**

A dark species belonging to the *vilis* group of Fall's "A Revision of the North American species of *Hydroporus* and *Agaporus*" (1923); last abdominal sternite of female produced at apex.

Female. Length 3.66 mm., width 2.01 mm. Form rather broadly ovate, only slightly convex; dorsal surface finely alutaceous, ventral more shining. Head piceous; pronotum piceous, narrowly paler along lateral margins; elytra dark reddish-brown, narrowly piceous along suture and lateral margins; metasternum and metacoxal plates piceous, abdominal sternites dark reddish-brown; first four antennal segments, legs, and tip of last sternite reddish-brown, outer antennal segments tinged with piceous.

Head two-thirds as wide as pronotum, surface finely alutaceous, finely sparsely punctate. *Pronotum* widest at base, basal margin bisinuate; surface finely reticulate, finely sparsely punctate, punctures twice as large as those of head, an anterior transverse series

¹ Contribution No. 2050, Division of Entomology, Science Service, Department of Agriculture, Ottawa, Ontario.